

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003123**Date Inspected:** 18-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Lui Hua jie, Wu Ming Kai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower, OBG**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

New Tower Bay 1

The Caltrans QA Inspector randomly observed the machine Submerged Arc Welding (SAW) of fill passes on Weld Nos. SSD1-SA179D/E-26B, 27B, 29B, 16, 21 and SSD1-SA179E/E-6, 10, 1B, 15, 14B, Skin Plate Face "C".

The ten weld numbers are actually on one weld joint. The "A" welds are CJP and the remaining welds are PJP. They alternate CJP/PJP along the joint. The welding was performed in the flat groove (1G) welding position by welding operator; Xu Yan (I. D. No. 052917). Welding Procedure Specification (WPS) WPS-B-T-2221-B-U3c-S was used for the CJP portion of the weld and WPS-B-T-2312-B-P3-S was used for the PJP portion. Certified Welding Inspector (CWI), Liu Hua jie (CWI No. 07120741), was present during the welding, as was ABF QA Inspectors, Wei Jian Bo and Li Han jie. The Caltrans QA Inspector verified the qualifications of the welding operators, and that the electrode/flux classification, diameter of electrode, amperage, voltage, travel speed, and preheat/interpass temperatures were within the specified ranges on the applicable WPS.

The Caltrans QA Inspector also randomly observed the milling of weld bevels on miscellaneous tower parts (p401, p379A, p388A).

New Tower Bay 2

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The Caltrans QA Inspector randomly observed the milling of weld bevels on miscellaneous tower parts (p189, p388, p379).

OBG – 3

The Caltrans QA Inspector randomly observed the flux cored arc welding (FCAW) of tack welds splicing two beam sections in the flat groove (1G) welding position. The welder was He Yu mei (I. D. 048625). Certified Welding Inspector (CWI), Wu Ming Kai (CWI No. 04082031) was monitoring this welding.

WPS-B-T-2231-B-U2-F was being used. The QA Caltrans Inspector verified the qualifications of the welder and that the electrode classification and diameter of electrode were as specified on the WPS.

OBG – 4

The Caltrans QA Inspector randomly observed the grinding on fillet welds joining WT stiffeners to Side Plate SP178-001.

OBG – 7

The Caltrans QA Inspector randomly observed the shielded metal arc welding (SMAW) of intermittent fillet welds joining I-stiffeners to Floor Beam FB011-001 using TL-508 (E7018) welding electrodes. The welder was Hu Ya Cheng (I. D. 049339). Certified Associate Welding Inspector (CAWI), Zhu Tian Shu (CAWI No. 07120464) was monitoring this work under the direction of Certified Welding Inspector (CWI), Huang Wen Pang, who was nearby. ABF QA Inspector, Wang Heng was also monitoring this work.

The Caltrans QA Inspector also randomly observed that CWI, Huang Wen Pang, and ABF QA Inspector, Wang Heng had also been monitoring the heat straightening of Weld Nos. FB023-001-078 thru 081, 101 and 108. Heat Straightening Record No. HSR1(B)-1190 was available at the work station for review.

OBG – 8

The Caltrans QA Inspector randomly observed the grinding on fillet welds joining I- stiffeners to floor beams.

All above observations appeared to meet the requirements of the job specifications.

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Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Jobes, Kenneth
Reviewed By:	Carreon, Albert

Quality Assurance Inspector
QA Reviewer
